

ABST

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification <sup>6</sup> : C07K 19/00, C07H 21/04, A01N 37/18, A61K 31/70, C12N 15/12</p>	<p>A1</p>	<p>(11) International Publication Number: <b>WO 97/11972</b> (43) International Publication Date: 3 April 1997 (03.04.97)</p>
<p>(21) International Application Number: PCT/US96/15576 (22) International Filing Date: 27 September 1996 (27.09.96) (30) Priority Data: 60/004,445 28 September 1995 (28.09.95) US 08/594,866 31 January 1996 (31.01.96) US (60) Parent Applications or Grants (63) Related by Continuation US 60/004,445 (CIP) Filed on 28 September 1995 (28.09.95) US 08/594,866 (CIP) Filed on 31 January 1996 (31.01.96) (71) Applicant (for all designated States except US): THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK [US/US]; West 116th Street and Broadway, New York, NY 10027 (US). (72) Inventor; and (75) Inventor/Applicant (for US only): BESTOR, Timothy, H. [US/US]; 429 East 85th Street, New York, NY 10028 (US).</p>	<p>(74) Agent: WHITE, John, P.; Cooper &amp; Dunham L.L.P., 1185 Avenue of the Americas, New York, NY 10036 (US). (81) Designated States: AU, CA, JP, MX, US, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).  Published With international search report.</p>	
<p>(54) Title: CHIMERIC DNA-BINDING/DNA METHYLTRANSFERASE NUCLEIC ACID AND POLYPEPTIDE AND USES THEREOF (57) Abstract  The present invention provides a chimeric protein which comprises a mutated DNA methyltransferase portion and a DNA binding protein portion that binds sufficiently close to a promoter sequence of a target gene which promoter sequence contains a methylation site, to specifically methylate the site and inhibit activity of the promoter and thus inhibit expression of the target gene. This invention also provides for a method for inhibiting the expression of a target gene which includes contacting a promoter of the target gene with the chimeric protein, so as to specifically methylate the promoter sequence of the target gene thus inhibiting expression of the target gene.</p>		